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Mark J. Enzmann

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EXAMINER

DESIR, PIERRE LOUIS

ART UNIT

PAPER NUMBER

2617

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/742,153	Applicant(s) ENZMANN, MARK J.	
	Examiner PIERRE-LOUIS DESIR	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 12 and 13 have been considered but are moot in view of the new ground(s) of rejection.

NOTE: Applicants argue that the cited references do not disclose the limitation “to determine a position of a handoff selector switch.”

The newly added limitation, “to determine a position of a handoff switch”, requires new ground of rejection.

Also, “to determine a position of a handoff switch” limitation is not described in the specification. Applicants expressed that the limitation may found in paragraphs 29 and 30. However, nowhere in the specification is there a description of a determination of the position of handoff selector switch, especially not in paragraphs 29 and 30.

Most importantly, nowhere in the specification or in the drawings is there a description or illustration of a handoff selector switch being in an 802.1x network or cellular network. The handoff selector switch disclosed in the specification is located in the wireless device.

Therefore, a new matter rejection will be added with this correspondence and the limitation will be interpreted as understood by examiner, i.e., any device that has a handoff switch or button that is pressed, pushed, or depressed for handoff selection would read on the claim for an inherent determination, has to take place to for the position of the switch before deciding to press, push, or depress for handoff.

The new matter rejection will also cover the call handoff circuitry in the cellular network which determines signal strength threshold. The specification provides no support for this

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disclosure. The specification does provide support for a call handoff circuitry that determines signal strength threshold. However, that call handoff circuitry is in the wireless device.

Therefore, that disclosure in the claim language will be interpreted as understood by examiner, i.e., signal strength is detected by the mobile device and the information is passed on to the network for handover decision.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 12, 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 12 and 13 have been amended with the following subject matter, "to determine a position of a handoff selector switch," and "determining a position of a handoff selector switch," respectively. The specification provides no support for the above added subject matter.

In addition, the specification provides no support for the following disclosure, "the call handoff circuitry determining when a first signal strength..." The specification does provide support for a call handoff circuitry that determines signal strength threshold. However, that call

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handoff circuitry is in the wireless device. In claim 13, the claimed call handoff circuitry appears to be in the cellular network.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12, 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pan in view of Segal and Shoaib et al. (Shoaib), US 20030193910 A1.

Regarding claim 12, Pan discloses an 802.1x network (see fig. 1, item 120) comprising an access point (see fig. 1, item 116) and comprising logic configured to determine when a call handoff switch from the 802.1x network to a cellular network is to occur and to communicate with a media gateway to cause the call handoff switch to occur (i.e., the communication network 206, more particularly the media gateway, detects that the mobile station 202 has reached the outer boundary 208 by measuring the radio signal strength of the mobile station perceived by the access point 212. Upon the radio signal strength reaching a first predetermined minimum threshold value, the media gateway 210 determines whether the mobile station 202 will move back toward the access point 212 such that its signal will improve, or move away from the access point such that communication with the mobile station must be handed-over to the second network 214 in order to maintain the established call. For example, a timer may be set to determine whether the mobile station 202 will return to coverage area such that its signal will

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improve, or move outside the range of coverage area such that it must handover to the cellular network. Once the communication network 206 detects that the radio signal strength from mobile station 202 has reached a second predetermined minimum threshold value, which is less than the first predetermined minimum threshold value, handover procedures are initiated) (see paragraph 38).

Although one skilled in the art would have found it obvious that the wireless LAN obviously comprises a server, Pan does not specifically disclose that the 802.1x comprising a server. Nor does it disclose determining a position of handoff selector switch.

However, Segal discloses an 802.1x network (see fig. 1) comprising a SIP CCF (i.e., server) (see fig. 1) for handling communications external to, as well as internal or inside the WLAN (paragraph 14). And, in case of handover, the SIP CCF would transfer the new call to the WAN using the cellular address (paragraph 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Segal with the teachings described by Pan to arrive at the claimed invention. A motivation for doing so would have been to facilitate the handoff of the device by providing seamless mobility.

The combination of Segal and Pan, however, does not specifically disclose logic to determine a position of a handoff selector switch.

However, Shoaib discloses a handover criterion wherein a determination takes place to decide whether or not a handover triggering process should be performed automatically or manually. If the triggering process is to be done manually, then the user initiates the handover (paragraph 89).

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To manually initiate handover a switch, button, or other user-selecting component must be available. And, with the specification not providing any description of what is implied by position of a selector switch, one skilled in the art would find it obvious that any determination procedure to decide whether or not a handover triggering process may be done manually would imply that a determination of the position of the switch, button, or other user-selecting component takes place.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to provide the added enhancement of user participation in handover decision.

Regarding claim 14, Pan discloses an 802.1x network (see claim 12 rejection) wherein the server comprises second logic configured to determine when a call handoff switch from a cellular network to the 802.1x network is to occur and to communicate with a media gateway that causes the media gateway to make appropriate connections to cause the call handoff switch to occur (see figs. 2-4, and paragraph 51. Also refer to paragraphs 53).

Regarding claim 15, Pan discloses a server (see claim 14 rejection) wherein said logic determines whether or not a signal level of a signal of a signal being transmitted from the 802.1x network to a wireless device exceeds a signal level of a signal being transmitted from the cellular network to the wireless device, said logic determining that a handoff from the 802.1x network to the cellular network should occur when the signal level of the signal being transmitted from the 802.1x network to the wireless device does not exceed the signal level of the signal being transmitted from the cellular network to the wireless device (i.e., the media gateway 210, detects

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that the mobile station 202 has reached the outer boundary 208 by measuring the radio signal strength of the mobile station perceived by the access point 212. Upon the radio signal strength reaching a first predetermined minimum threshold value, the media gateway 210 determines whether the mobile station 202 will move back toward the access point 212 such that its signal will improve, or move away from the access point such that communication with the mobile station must be handed-over to the second network 214 in order to maintain the established call. For example, a timer may be set to determine whether the mobile station 202 will return to coverage area such that its signal will improve, or move outside the range of coverage area such that it must handover to the cellular network. Once the communication network 206 detects that the radio signal strength from mobile station 202 has reached a second predetermined minimum threshold value, which is less than the first predetermined minimum threshold value, handover procedures are initiated.

6. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baw in view and Shoaib et al. (Shoaib), US 20030193910 A1, and Sundar et al. (Sundar), US 20030134638 A1.

Regarding claim 13, Baw discloses a cellular network (see fig. 1) comprising call handoff circuitry to determine when a call handoff switch from an 802.1x network to the cellular network is to occur and communicating with a media gateway to connect to the cellular network, and communicating with the media gateway to disconnect from the 802.1x network (i.e., The invention 10 (i.e., gateway) determines that a handoff is necessary towards an external cell site base station that is part of BTS 40. The Invention 10 formulates a Handover Request message

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frame and sends it to the Wide-Area Network 30, which looks up a list of potential handoff candidates and sends a **Handover Request message** to the handoff candidate base station ("new base station") that is part of BTS 40. The new base station activates a new traffic channel in anticipation of the handoff, and sends an Acknowledge message back to the Wide-Area Network, which then sends a **Handover Command message** to The Invention 10 (gateway) with parameters that the invention 10 translates and maps this GSM/CDMA/TDMA Handover Command signaling message into 802.11 by first forming a LAPDm message frame, and then further encapsulates it with 802.11 MAC layer headers. This message is then sent across the 802.11 WLAN air link towards the dual-mode cellular phone the dual-mode cellular phone moves into the coverage area of the new base station, connects to it and tunes to the assigned signaling channel. The dual-mode cellular phone now converts back into cellular mode. The dual-mode cellular phone now communicates directly with the new base station via the newly assigned signaling channel and sends a Handoff Access message to the new base station. The new base station then sends a Handover Complete message to the Wide-Area Network 30. The Wide-Area Network 30 then notifies The Invention 10 to release any communication links with the dual-mode cellular phone) (see paragraphs 199-220).

Baw, however, does not specifically disclose a network wherein the call handoff circuitry determining when a first signal strength from an 802.1x network falls below a first threshold, determining when a second signal strength of a cellular network rises above a second threshold, and determining a position of a handoff selector switch.

However, Shoaib discloses a handover criterion wherein a determination takes place to decide whether or not a handover triggering process should be performed automatically or

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manually. If the triggering process is to be done manually, then the user initiates the handover (paragraph 89).

To manually initiate handover a switch, button, or other user-selecting component must be available. And, with the specification not providing any description of what is implied by position of a selector switch, one skilled in the art would find it obvious that any determination procedure to decide whether or not a handover triggering process may be done manually would imply that a determination of the position of the switch, button, or other user-selecting component takes place.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to provide the added enhancement of user participation in handover decision.

The combination of Baw and Shoaib does not specifically disclose a network wherein the call handoff circuitry determining when a first signal strength from an 802.1x network falls below a first threshold, determining when a second signal strength of a cellular network rises above a second threshold.

However, Sundar discloses determining when a first signal strength from an 802.1x network falls below a first threshold, determining when a second signal strength of a cellular network rises above a second threshold (i.e., detecting that the WLAN RF strength decreases below some threshold and the WWAN strength is above a threshold values) (see paragraph 67).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by the references to arrive at the claimed invention. A motivation for doing so would have been to ensure proper handoff procedure.

Regarding claim 16, Baw discloses a network (see claim 13 rejection) further comprising logic configured to perform a call handoff switch from the cellular network to the 802.1x network so that a call being carried on the cellular network can be switched from the cellular network to the 802.1x network, and communicating with the media gateway to disconnect from the cellular network (see paragraphs 223-245).

Although Baw discloses a network as described, Baw does not specifically disclose a network wherein the logic determining when the second signal strength from the cellular network falls below a third threshold, determining when the first signal strength from the 802.1x network rises above a fourth threshold.

However, Sundar discloses sensing RF energy strength of a WWAN and WLAN, and whichever RF strength is above a threshold, that network will be chosen (see paragraphs 67 and 76, and 78).

Therefore, one skilled in the art would have found it obvious that if the device was presently using WWAN, a detection of the WWAN RF strength has to be below a certain threshold, and a detection of the WLAN RF strength has to be above a certain threshold for an handover to WLAN to take place.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by the references to arrive at the claimed invention. A motivation for doing so would have been to ensure proper handoff procedure.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PIERRE-LOUIS DESIR whose telephone number is (571)272-7799. The examiner can normally be reached on Monday-Friday 9:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (571)272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pierre-Louis Desir/
Examiner, Art Unit 2617

/Dwayne D. Bost/
Supervisory Patent Examiner,
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